

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of
HAAYO NICOLAI

Atty. Docket
NL040365US1

Confirmation No. 1326

Serial No. 10/594,489

Group Art Unit: 3742

Filed: SEPTEMBER 27, 2007

Examiner: TEATERS, LINDSEY C.

Title: METHOD FOR OPERATING OF A BOILER OF A DEVICE SUCH AS A
COFFEE MAKER

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Board of Patent Appeals and Interferences
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

Sir:

Appellant herewith respectfully presents a Brief on Appeal as follows, where a
Notice of Appeal is concurrently filed:

REAL PARTY IN INTEREST

The real party in interest in this appeal is the assignee of record Koninklijke Philips Electronics N.V., a corporation of The Netherlands having an office and a place of business at Groenewoudseweg 1, Eindhoven, Netherlands 5621 BA.

RELATED APPEALS AND INTERFERENCES

Appellant and the undersigned attorney are not aware of any other appeals or interferences which will directly affect or be directly affected by or having a bearing on the Board's decision in the pending appeal.

STATUS OF CLAIMS

Claims 1-15 are pending in this application. Claims 1-15 are rejected in the Final Office Action mailed in May 14, 2010. Claims 1-15 are the subject of this appeal.

STATUS OF AMENDMENTS

Appellant did not file a response to a Final Office Action mailed on May 14 2010. This Appeal Brief is in response to the Final Office Action mailed May 14, 2010, that finally rejected claims 1-15.

SUMMARY OF THE CLAIMED SUBJECT MATTER

The present invention, for example, as recited in independent claim 1 and shown in FIGs 1-2, and described on page 4, line 31 to page 6, line 13; and page 7, line 6, to page 13, line 22 of the specification, is directed to a method for operating a boiler 6 of a device 1, wherein the boiler 6 comprises a container 61 for containing water and a heating element 62 for heating the water to a predetermined temperature, the method comprising the following successive acts activating the heating element 62 of the boiler 6 during a predetermined length of time, such as 12 seconds as shown in FIG 4, and described on page 13, line 12; measuring at least one characteristic of the thermal behavior displayed by the boiler 6 as a consequence of the activating act of the heating element 62 including recording a first temperature at a first time, such as at 18 seconds from the starting point, described on page 13, line 13; and recording a second temperature at a second time, such as at 21 seconds from the starting point, described on page 13, line 14. As shown in FIG 4, and described on page 13, lines 12-14, the first time (e.g., 18 seconds from the starting point) is after a first time period after the predetermined length of time, and the second time (e.g., 21 seconds from the starting point) is after a second time period after the predetermined length of time and the first time. As shown in FIG 2 and described on page 7, line 24 to page 8, line 27, the method includes verifying whether the measured characteristic is in a range associated with thermal behavior of a boiler filled with water or a

range associated with thermal behavior of an empty boiler; only in case the measured characteristic appears to be in the range associated with thermal behavior of an empty boiler, filling the container of the boiler with a predetermined quantity of water; and activating the heating element 62 of the boiler 6 to heat the water in the container of the boiler to the predetermined temperature.

The present invention, for example, as recited in independent claim 9 and shown in FIGs 1-2, and described on page 4, line 31 to page 6, line 13; and page 7, line 6, to page 13, line 22 of the specification, is directed to a device 1 comprising a boiler 6 which comprises a container 61 for containing water and a heating element 62 for heating the water to a predetermined temperature. The device 1 further includes a controller 10 which is programmed such as to perform the successive acts of activating the heating element 62 of the boiler during a predetermined length of time, such as 12 seconds as shown in FIG 4, and described on page 13, line 12; measuring at least one characteristic of the thermal behavior displayed by the boiler as a consequence of the activation of the heating element including recording a first temperature at a first time, such as at 18 seconds from the starting point, described on page 13, line 13; and recording a second temperature at a second time, such as at 21 seconds from the starting point, described on page 13, line 14.

As shown in FIG 4, and described on page 13, lines 12-14, the first time (e.g., 18 seconds from the starting point) is after a first time period after the predetermined length of time, and the second time (e.g., 21 seconds from the starting point) is after a second time period after the predetermined length of time and the first time. As shown in FIG 2 and described on page 7, line 24 to page 8, line 27, the controller is further configured to verify whether the measured characteristic is in a range associated with thermal behavior of a boiler filled with water or a range associated with thermal behavior of an empty boiler; only in case the measured characteristic appears to be in the range associated with thermal behavior of an empty boiler, fill the container of the boiler with a predetermined quantity of water; and activate the heating element 62 of the boiler 6 to heat the water in the container of the boiler to the predetermined temperature.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1-15 of U.S. Patent Application Serial No. 10/594,489 are unpatentable under 35 U.S.C. §103(a) over U.S. Patent No. 5,372,061 (Albert) in view of EP 1 076 212 A2 (Anderson).

ARGUMENT

Claims 1-15 are said to be unpatentable over Albert in view of Anderson.

Appellant respectfully requests the Board to address the patentability of independent claims 1 and 9, and further claims 2-8 and 10-15 as depending from independent claims 1 and 9, based on the requirements of independent claims 1 and 9. This position is provided for the specific and stated purpose of simplifying the current issues on appeal. However, Appellant herein specifically reserves the right to argue and address the patentability of claims 2-8 and 10-15 at a later date should the separately patentable subject matter of claims 2-8 and 10-15 later become an issue. Accordingly, this limitation of the subject matter presented for appeal herein, specifically limited to discussions of the patentability of independent claims 1 and 9 is not intended as a waiver of Appellant's right to argue the patentability of the further claims and claim elements at that later time.

Albert is directed to an espresso/cappuccino apparatus. As correctly noted on page 4, first full paragraph of the Office Action, Albert does not disclose or suggest determining if the boiler is full or empty. Anderson is cited in an attempt to remedy the deficiencies in Albert.

Anderson is directed to a control and method for preventing dry start of an electric water heater. As recited in paragraph [0003], the Anderson method includes "first recording the initial temperature at the single or bottom most heating element. The single or

bottom most heating element then is activated for a short period of time followed by deactivation and a delay after which the final temperature at the bottom most heating element is recorded." (Emphasis added) That is, Anderson uses only ONE temperature measurement taken AFTER the heater activation. The initial temperature measurement in Anderson is taken BEFORE the heater activation.

It is respectfully submitted that Albert, Anderson, and combination thereof, do not teach or suggest the present invention as recited in independent claim 1, and similarly recited in independent claim 9 which, amongst other patentable elements, recites (illustrative emphasis provided):

the method comprising the following successive acts:
activating the heating element of the boiler during a predetermined length of time;
measuring at least one characteristic of the thermal behavior displayed by the boiler as a consequence of the activating act of the heating element including recording a first temperature at a first time and recording a second temperature at a second time, wherein the first time is after a first time period after the predetermined length of time, and the second time is after a second time period after the predetermined length of time and the first time;
verifying whether the measured characteristic is in a range associated with thermal behavior of a boiler filled with water or a range associated with thermal behavior of an empty boiler.

These features, including activating the heating element during a predetermined length of time and then recording two temperatures to measure characteristics for determining whether the boiler is empty or filled with water, are nowhere disclosed or suggested in Albert and Anderson, alone or in combination. Rather, Anderson discloses to

first record a first temperature, then activate and deactivate the heater, and then record a second temperature. That is, instead of activating a heater for a period of time and THEN using TWO temperatures AFTER the heater activation to determine whether the boiler is full or empty, Anderson uses only ONE temperature measurement taken AFTER the heater activation. The other or initial temperature measurement in Anderson is taken BEFORE the heater activation.

Based on the foregoing, it is respectfully requested that independent claims 1 and 9 be allowed. In addition, it is respectfully submitted that claims 2-8 and 10-15 should also be allowed at least based on their dependence from independent claims 1 and 9.

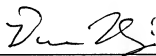
In addition, Appellant denies any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Appellant reserves the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

CONCLUSION

Claims 1-15 are patentable over Albert and Anderson.

Thus, the Examiner's rejections of claims 1-15 should be reversed.

Respectfully submitted,

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CLAIMS APPENDIX

1.(Previously Presented) A method for operating a boiler of a device, wherein the boiler comprises a container for containing water and a heating element for heating the water to a predetermined temperature, the method comprising the following successive acts:

activating the heating element of the boiler during a predetermined length of time;

measuring at least one characteristic of the thermal behavior displayed by the boiler as a consequence of the activating act of the heating element including recording a first temperature at a first time and recording a second temperature at a second time, wherein the first time is after a first time period after the predetermined length of time, and the second time is after a second time period after the predetermined length of time and the first time;

verifying whether the measured characteristic is in a range associated with thermal behavior of a boiler filled with water or a range associated with thermal behavior of an empty boiler;

only in case the measured characteristic appears to be in the range associated with thermal behavior of an empty boiler, filling the container of the boiler with a predetermined quantity of water; and

activating the heating element of the boiler to heat the water in the container of the boiler to the predetermined temperature.

2.(Previously Presented) The method according to claim 2, wherein the verifying act comprises comparing the measured characteristic with a reference characteristic, which is between the range associated with thermal behavior of a boiler filled with water and the range associated with thermal behavior of an empty boiler, in order to determine whether the measured characteristic is at a side of the reference characteristic where the range associated with thermal behavior of a boiler filled with water is or a side of the reference characteristic where the range associated with thermal behavior of an empty boiler is.

3.(Previously Presented) The method according to claim 1, wherein the measuring act comprises measuring a temperature change in the boiler at a measuring position which is located at a distance from the heating element, over a time interval having a predetermined length and a predetermined starting time with respect to a starting time of the operation of the heating element; and wherein the verifying act comprises comparing a measured temperature change with a predetermined reference temperature change which is below a range of temperature changes associated with an empty boiler, and which is above a range of temperature changes associated with a boiler filled with water.

4.(Previously Presented) The method according to claim 1, wherein the device comprises a pump for pumping water to the boiler, and wherein the filling act comprises

activating the pump during a predetermined length of time.

5.(Previously Presented) The method according to claim 1, wherein the measuring act is performed after the predetermined length of time during which the heating element of the boiler is activated has lapsed.

6.(Previously Presented) The method according to claim 5, wherein the measuring act is performed after a temperature change of a filled boiler, measured over a predetermined time interval, has become smaller than a temperature change of an empty boiler, measured over the same time interval.

7.(Previously Presented) The method according to claim 1, wherein the second activating act is initiated before the filling act has finished.

8.(Previously Presented) The method according to claim 1, wherein the predetermined quantity of water with which the container of the boiler is filled during the filling act is equal to or smaller than the volume of the container.

9.(Previously Presented) A device comprising:

a boiler which comprises a container for containing water and a heating element for

heating the water to a predetermined temperature, and

a controller which is programmed such as to perform the successive acts of:

activating the heating element of the boiler during a predetermined length of time;

measuring at least one characteristic of the thermal behavior displayed by the boiler as a consequence of the activation of the heating element including recording a first temperature at a first time and recording a second temperature at a second time, wherein the first time is after a first time period after the predetermined length of time, and the second time is after a second time period after the predetermined length of time and the first time;

verifying whether the measured characteristic is in a range associated with thermal behavior of a boiler filled with water or a range associated with thermal behavior of an empty boiler;

only in case the measured characteristic appears to be in the range associated with thermal behavior of an empty boiler, filling the container of the boiler with a predetermined quantity of water; and

activating the heating element of the boiler to heat the water in the container of the boiler to the predetermined temperature.

10.(Previously Presented) The device according to claim 9, further comprising a temperature detector for detecting a temperature inside the boiler, which temperature

detector is located at a distance from the heating element.

11.(Previously Presented) The method of claim 1, wherein the predetermined length of time is 12 seconds, the first time period is 6 seconds so that the first time is 18 seconds from the activating act, and the second time period is 3 seconds so that the second time is 21 seconds from the activating act.

12.(Previously Presented) The method of claim 1, wherein the predetermined length of time is greater than the first time period, and the first time period is greater than second time period.

13.(Previously Presented) The method of claim 1, wherein the device comprises a coffee maker.

14.(Previously Presented) The device of claim 8, wherein the predetermined length of time is greater than the first time period, and the first time period is greater than second time period.

15.(Previously Presented) The device of claim 8, wherein the device comprises a coffee maker.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None